N.C. Department of Labor

Elevator and Amusement Device Bureau



FY 2007 Annual Report

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FY 2007 Highlights and Accomplishments

- In the past three fiscal years, applications for new elevators have increased by 11.4 percent, while applications for alterations and repairs have increased by 10.8 percent.
- A total of 16,506 routine elevator inspections were completed in 2006-2007.
- The total number of accident investigations in 2006-2007 decreased by 20 percent compared to 2004-2005. This can be attributed to the bureau's increased training for inspectors as well as increased education through our annual industry meetings.
- We continued to promote a statewide Rider Safety Program targeted at school age children. The program this year was "Measure Up to Safety" and we distributed 114,600 height stickers for kids and safety buttons, which were worn by the rider operators. There were 37 out of 45 fairs participating.
- Completed development of a new Web-based computer application to electronically process elevator inspection reports from the field directly to the central database.
- Our bureau now has state representation on the National Association of Elevator Safety Authorities (NAESA) Board of Directors.
- The bureau had the first amusement device partnership signed this year. The partnership agreement was between the Ghost Town in the Sky amusement park located in Maggie Valley and the N.C. Department of Labor Elevator and Amusement Device Bureau.
- This year the bureau investigated 41 incidents and only six reportable incidents per the General Statue of the state.

The Elevator and Amusement Device Bureau

The Elevator and Amusement Device Bureau is responsible for the proper installation and safe operation of all elevators, escalators, workman's hoists, dumbwaiters, moving walks, aerial passenger tramways, amusement rides, incline railways and lifting devices for persons with disabilities that operate in public establishments (except federal buildings) and private places of employment. It also inspects all of the amusement devices each and every time they are set up for operation in the state. The bureau inspects all inflatable amusement devices and portable rock walls that operate in the state on annual basis. The annual inspection of inflatable devices and the rock walls is from March to March.

The bureau was responsible for making 18,934 routine and new inspections as well as 5,614 amusement device inspections at 1,195 locations in 2006-07. The bureau consists of thirty field inspectors, three field supervisors, four administrative staff, and assistant chief and the bureau chief. The Elevator and Amusement Device Bureau is a receipt-supported bureau, which means that the fees collected pay for the operation of the bureau and the salaries of the bureau staff.

2006-2007 Performance and Achievements

Elevator Inspections

Inspections of elevators, dumbwaiters, escalators and handicapped lifts consist of new applications and inspections, applications for repairs/alterations, routine and compliance which are defined as follows:

New Application: Document submitted by the installer of equipment containing all specific information about the unit as well as the location and owner information and type equipment. This application is reviewed by the bureau engineer for code compliance.

New Inspection: When a new unit is installed and the first inspection is conducted for code compliance and approved for public use.

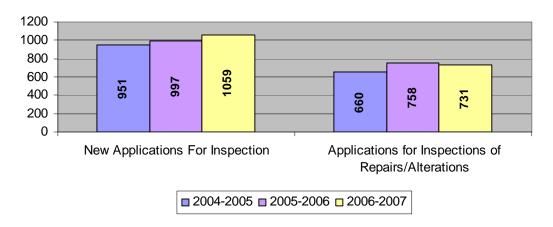
Application for Repairs/Alterations: Document submitted by elevator contractors performing the alteration or repair to the equipment. Information provided is type equipment, location, owner information and description of work being performed.

Routine Inspection: Inspections conducted on existing certified units to include elevators, escalators, dumbwaiters and handicapped lifts.

New Compliance Inspection: Inspections conducted when the unit fails its initial acceptance inspection due to non-compliant installation conditions that prohibit the unit from being certified under national code requirements.

Routine Compliance Inspection: Re-inspection of units in which violations were sited to confirm corrective action was taken and unit was brought into compliance.

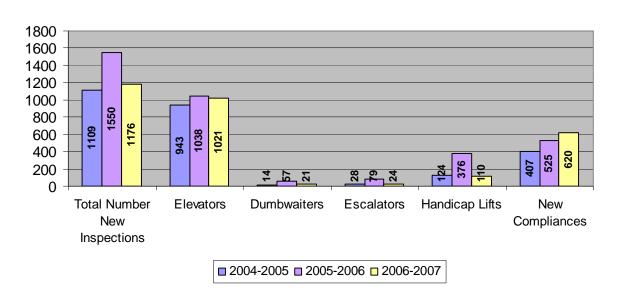
 $\frac{\text{Chart 1}}{\text{Growth in New Elevators and Alterations/Repairs}}$



As shown in Chart 1, the bureau has seen an increase in new applications in the last three fiscal years of 11.4 percent. There was a slight decrease in applications for alterations and repairs from 2005-06. In Chart 2, the total number of new inspections dropped in 2006-07 from the previous fiscal-year by 24.2 percent. Most of the drop was due to an approximately 70 percent reduction in new handicap lift inspections.

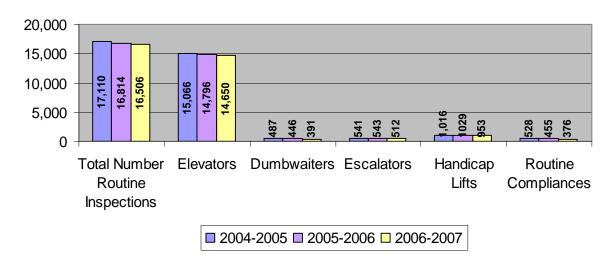
Chart 2

Number of New Inspections
(6% Increase in Total New Inspections 2005-2007)



<u>Chart 3</u>

Routine Inspections

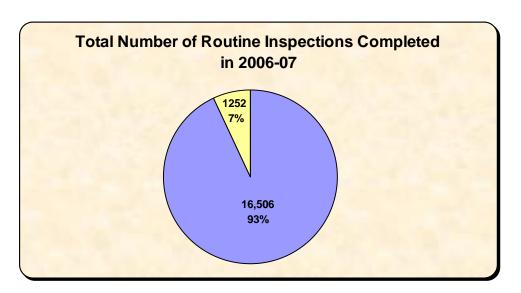


The total number of routine inspections completed for the past three fiscal years has remained relatively steady as shown in Chart 3. There were a total of 17,758 routine inspections due in

2006-07. Chart 4 indicates that 16,506 of those inspections were completed while 1,252 (7 percent) were at least one day past due for inspection as of July 1, 2007.

The percentage of overdue units is a result of several factors. Each inspector is responsible for providing service for multiple counties. As with many state and private agencies, the bureau experiences loss of production due to sickness, disability, Family Medical Leave Act, and increased inspection activities in various areas throughout the state. It is also important to note that owners of elevators, escalators, dumbwaiters and moving walks retain maintenance contracts with elevator contractors who perform maintenance on the related equipment as required by the national code that the bureau enforces. The scope of such maintenance includes the testing of all safety devices specific to the equipment. The code requires this activity to be documented for review by the state inspector.

Chart 4



The Elevator Advisory Board formed by Labor Commissioner Berry in 2004 to advise on enforcement of the Elevator Safety Act and to have input into areas of administrative policies/regulations met once in 2006 and once in 2007. The board discusses subjects such as code issues, fee structure, adoption of new code requirements regarding new technologies and products, and specific field inspection issues that affect the industry. Board membership consists of the bureau chief who serves as officiator and representatives of the elevator industry.

Bureau management also held another annual meeting with representatives of elevator companies in North Carolina to discuss issues and mutual concerns. These meetings give the bureau's customers the opportunity to discuss their concerns and suggestions in an open forum with other members of the industry.

Effective July 1, 2007, the bureau increased elevator and related equipment fees. The dumbwaiters and handicapped lifts increased from \$35 to \$65 per inspection. All hydraulic elevators, escalators and special lifting devices increased from \$118 to \$175 per inspection. All traction elevators increased to \$200 per inspection regardless of the number of floors.

The bureau has completed the computer program allowing the field inspectors to down load their work to the Raleigh office. The bureau created an Information Technologies Committee to

keep the bureau updated on the latest software as well as maintaining the program that we have created. This program is a major step toward making the bureau "paperless." The program began in full operation September 2007.

Amusement Device Inspections

Amusement device inspections consist of hard rides, inflatable rides, go-karts, rock-climbing walls, etc. Tramways and ski lifts are also included in this inspection category. While hard rides at permanent parks, such as Carowinds, are inspected once annually, hard rides with traveling amusement companies are inspected every time they are set up for operation at fairs, festivals, carnivals and other amusement events. The bureau inspects all inflatable amusement devices and portable rock walls that operate in the state on an annual basis.

Chart 5

Number of Amusement Device Inspections & Violations

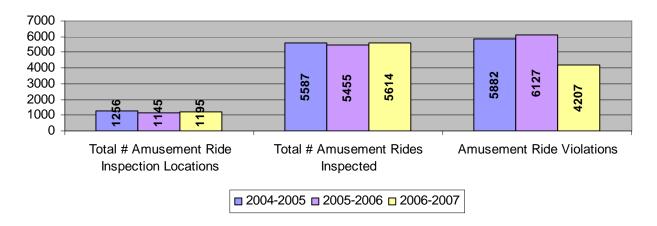


Chart 5 indicates the total number of individual rides inspected, the number of locations inspected and the number of violations. A violation is cited when there is a repair or replacement required before certification.

While the number of individual amusement rides inspected has remained relatively steady for the past three years, the number of locations where inspections were made has increased by 4.4 percent since 2005-06. The number of violations has decreased which is partly due to operator safety training classes conducted by bureau inspectors and supervisors.

Other Notable Achievements in Amusement Device Inspections

The Elevator and Amusement Device Bureau continued the Rider Safety Program again in 2006 and 2007. This year's slogan was "Measure Up to Safety." The bureau developed banners to allow the participating fairs to hang up and measure the children at their fair. Along with the banners, we made stickers for the people measuring the children so they can write their height in inches on the sticker. Also we had buttons made for the ride operators to wear during the fair season. The purpose of measuring height of the children is that various amusement devices are manufactured with specific height requirements to afford the maximum in safety. It also decreases the probability of a child becoming displaced while the ride is in operation.

In partnership with the N.C. Fair Association, we distributed 114,600 safety stickers at their local fairs, distributed safety buttons for rider operators as well as posting large signs with the eleven safety tips. The signs were displayed at entrances at 37 of the 45 participating fairs. In addition, our bureau conducted safety meetings with the ride operators of each amusement company playing one or more fairs in 2006. Each operator was given information about what ride operators should know about their rides and specific information about their personal safety.

An advisory board was also established for amusement devices in 2004. The board is comprised of a ride manufacturer representative, two representatives for carnival owners, two representatives for the inflatable industry and a representative for permanent parks. Three meetings were held for 2006-2007 with the Amusement Advisory Board. This year the bureau created a N.C. Safety Amusement Star, a program to recognize companies for safety excellence. This will be presented to qualifying companies that go above and beyond in safety for their patrons. The board was challenged with setting the criteria for companies to earn this flag to hang at their company businesses. We plan to kick off this program in 2008.

Moreover, as with elevator companies, our bureau held an annual meeting with amusement companies during this fiscal year. One meeting was held during the morning with owners and operators of inflatable rides and in the afternoon with owners and operators of hard rides. The meetings are separated since each group has different issues for discussion. There were approximately 155 attendees for these meetings.

The bureau Web site has seen many changes. Most of the forms needed by our customers are there to complete and submit online directly to us for processing. A few new forms were created to submit online also. There was a complete re-formatting of our home page with the elevator and amusement sections divided for ease of use. We added a "What's New" section for all information that we wanted customers to see quickly. We also created a link to our elevator inspection database for public inquiry. Elevators may be selected by choosing from either the county drop-down list, entering a company name, or by clicking on the state map and then the individual county. The listing contains the owner and user company name and address, equipment type, capacity, installed date, number of landings, and speed. The list is in order by county name, owner name and occupant name.

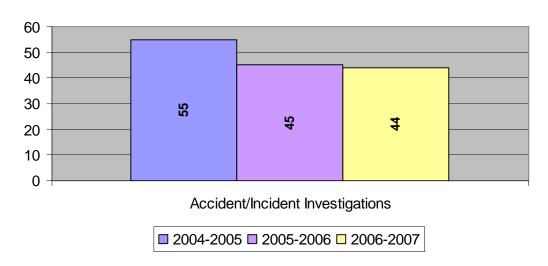
Accident or Incident Investigations

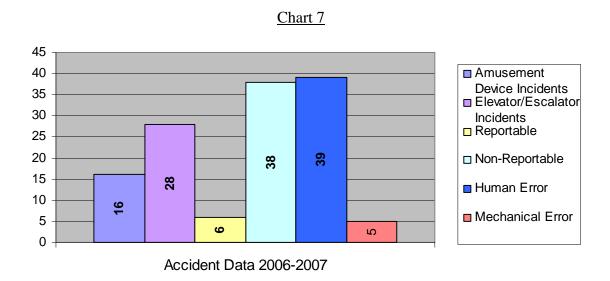
Accident investigations are conducted when more than first aid is required. The owner of the equipment is required to contact the bureau. An inspector is sent to the location and completes a report that is kept on file.

As Chart 6 reflects, the total number of accident investigations in 2006-2007 decreased by 20 percent compared to 2004-05. This can be attributed to the bureau's increased training for inspectors as well as increased education through our annual industry meetings. During 2005-06, each inspector was issued for the first time an accident investigation kit containing all the tools necessary for conducting a thorough investigation. Chart 7 gives the numbers for reportable and non-reportable incidents, mechanical or human error as well as the number of amusement vs. elevator/escalator incidents.

<u>Chart 6</u>

Accident/Incident Investigations





Revenues, Expenses and Inspector Hours

Chart 7 and 8 indicate inspectors' expenses, travel time, field time, office time, mileage expenses and fees collected.

The increase in travel and field time shown in Chart 8 is attributed to increased workload, both elevators and amusements, as well as conducting operational checks for all local fairs and festivals during operation and additional assistance with initial inspections. Inspectors' field time has increased (2 percent) compared to 2005-2006.

Chart 8
Inspector Expenses Vs. Fees Collected

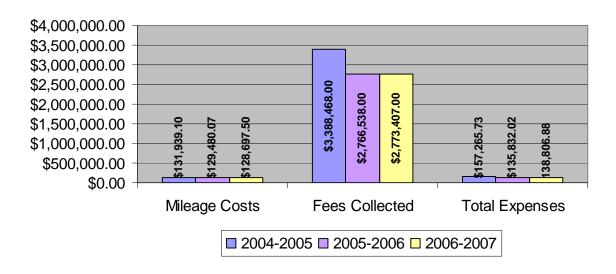
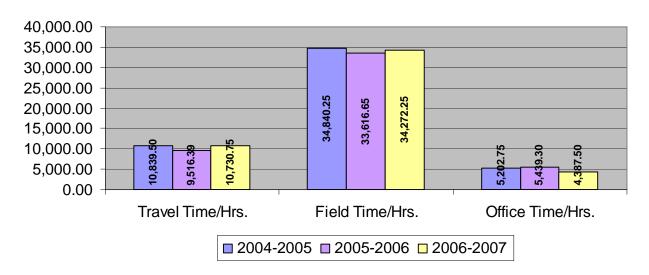


Chart 9
Inspectors' Travel, Field, Office Time



Current Bureau Initiatives

- 1. Improve consistency at all levels of regulation by the implementation of the Amusement Inspectors Apprenticeship Program, providing information for any changes in legislation on code requirements that impact our industry, and continuing to provide training and equipment for field staff.
- 2. Improve the quality of services provided for all our customers by providing online capabilities to access information related to this industry such as electronic submission for all bureau forms and customer data. Create a Web-based search program to assist in gathering information about registered units in order to expedite the application and inspection services we provide.
- 3. Enhance our outreach programs for both elevator and amusement companies by providing opportunities for communications and feedback to better serve our customers. Enhance Web-based programs for gathering information, Elevator and Amusement Advisory Board meetings, and partnership with the N.C. Fair Association.
- 4. Improve and enhance our information technologies capabilities to increase productivity. Continue to focus on future opportunities for education and training as technology and customers' needs change.
- 5. Create new opportunities involving the riding public:
 - Safety awareness to the fair attending public;
 - Public school children awareness by distributing safety handouts; and
 - Enhance the ride operator safety meetings through education and training programs for employees.
- 6. Develop partnerships with all of our customers to ensure the mission and the vision of this bureau stays focused on the needs of the customer, while still maintaining a high standard of safety and service.
- 7. Complete development of a back-office computer application to successfully manage the amusement device program in order to better manage a growing workload and increase productivity. Develop and implement an elevator inspection apprenticeship program as well.
- 8. The development of the Amusement Safety Star program for the amusement industry. The program will be for both the amusement device owners as well as the fair or permanent parks that wish to participate in the program. The Star program will be a completely voluntary program.